

# Notice of Allowability

Application No.

10/758,667

Examiner

Roy M. Punnoose

Applicant(s)

BOEGE ET AL.

Art Unit

2886

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers filed on 04/27/2007.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings were received on 04/27/2007. Examiner has accepted these drawings and has been entered into the records.

### ***Allowable Subject Matter***

2. Claims 1-22 are allowable.
3. Claim 1 is allowable because, prior art of record taken alone or in combination, fails to disclose or render obvious a fluorometry device for determining concentration of spectrally distinguishable species in a biological sample, the device comprising, a detector adapted to receive the fluorescent light emitted from the samples, wherein the fluorescent light is not in focus and does not provide spatial content from a focus plane in the samples, wherein the device provides a data signal representative of the concentration of spectrally distinguishable species based on the intensity of fluorescent light emitted by the samples, in combination with the rest of the limitations of claim 1.
4. Claims 2-10 are allowable because they are dependent on independent claim 1 or an intermediate claim, and they include all the allowable limitations of the parent claim(s).
5. Claim 11 is allowable because, prior art of record taken alone or in combination, fails to disclose or render obvious a method of determining the concentration of spectrally distinguishable species in a biological sample with fluorometry, the method comprising the steps of passing light from the light source to the sample region and from the sample region to the detector through a first optical device, wherein the first optical device passes light in a first wavelength band that primarily excites a first dye from the light source to the sample region, and

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passes light in a second wavelength band that is primarily emitted from the first dye from sample region to the detector; moving the movable platform to position a second optical device in the optical paths between the light source and the sample region and between the sample region and the detector; passing light from the light source to sample region and from the sample region to the detector through the second optical device, wherein the second optical device passes light in a third wavelength band that primarily excites a second dye from the light source to the sample region, and passes light in a fourth wavelength band that is primarily emitted from of the second dye from the sample region to the detector; focusing the light in the second wavelength band and fourth wavelength band on the pupil of the camera, in combination with the rest of the limitations of claim 11.

6. Claims 12-14 are allowable because they are dependent on independent claim 11 or an intermediate claim, and they include all the allowable limitations of the parent claim(s).

7. Claim 19 is allowable because, prior art of record taken alone or in combination, fails to disclose or render obvious a method of determining the concentration of spectrally distinguishable species in a biological sample with fluorometry, the method comprising the steps in which each optical device is adapted to one spectrally distinguishable species in the samples, focusing the light in the second wavelength band and fourth wavelength band on the pupil of the camera, thermally cycling the plurality of samples, transitioning between optical device by moving the platform, determining the concentration of each spectrally distinguishable species throughout the thermal cycling, in combination with the rest of the limitations of claim 19.

8. Claims 20-21 are allowable because they are dependent on independent claim 19 or an intermediate claim, and they include all the allowable limitations of the parent claim(s).

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9. Claim 22 is allowable because, prior art of record taken alone or in combination, fails to disclose or render obvious an apparatus for determining the concentration of spectrally distinguishable species in a biological sample by fluorometry, the device comprising, means for blocking a plurality of wavelengths of light emitted from the sample when the sample comprises DNA and at least one dye, and means for generating a plurality of data signals, each data signal representative of the concentration of DNA in the sample, wherein a data signal is generated when each one of the plurality of optical devices receives the source beam, in combination with the rest of the limitations of claim 22.

10. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Contact/Status Information***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Roy M. Punnoose** whose telephone number is **571-272-2427**.

The examiner can normally be reached on 9:00 AM - 5:30 PM.

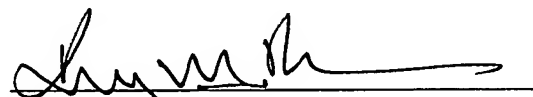
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Tarifur Chowdhury** can be reached on **571-272-2287**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 24, 2007

A handwritten signature in black ink, appearing to read 'Roy M. Punnoose', written over a horizontal line.

**Roy M. Punnoose**  
Primary Patent Examiner  
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